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September 23, 2005

Ms. Colleen Stone  
California Regional Water Quality Control Board  
North Coast Region  
5550 Skylane Boulevard Suite A  
Santa Rosa, California 95403

RE: **Addendum to the Quarterly Summary and Monitoring Report – Second Quarter 2005**

SECOR Project No.: 77CP.60009.01.0220

Dear Ms. Stone:

On behalf of ConocoPhillips, SECOR International Incorporated (SECOR) is forwarding the quarterly summary report addendum for the following location:

**Service Station**

Former Bulk Plant No. 0220

**Location**

720 North Franklin Street  
Fort Bragg, California

Sincerely,  
**SECOR International Incorporated**

Thomas M. Potter  
Project Scientist

Attachments: SECOR's *Quarterly Summary Report – Second Quarter 2005*

cc: Mr. Thomas Kosel, ConocoPhillips

**QUARTERLY SUMMARY REPORT  
Second Quarter 2005 - Addendum**

Former Bulk Plant No. 0220  
720 North Franklin Street  
Fort Bragg, California

City/County ID #: Fort Bragg

County: Mendocino

**SITE DESCRIPTION**

The site is located near the north end of the City of Fort Bragg at the corner of Franklin and Spruce Streets. Pudding Creek is located approximately 1,200 feet north of the site, and the Pacific Ocean is located approximately 2,400 feet west of the site. The facility was built in 1924 and currently consists of a storehouse, an office, a drum storage and filling area, five above ground storage tanks (ASTs), a pump area, and loading racks. Former components of the facility included two 550-gallon underground spill contaminant tanks (SCTs) used to collect overflow spillage and overflow spillage with waste oil respectively, and a pump area. Product was historically supplied to the bulk plant by rail and for the past 30 years by truck. There are two separate unloading racks; one was to service rail cars (currently not in use) and the other to service trucks. Both the train and truck unloading racks serviced the bulk storage ASTs and loading rack via underground pipelines. The tank farm has a capacity of 85,000 gallons of storage with four 20,000-gallon ASTs and one 5,000-gallon AST.

**PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIVITIES**

In September 1988 Kaprealian Engineering Incorporated (KEI) conducted a preliminary site investigation that included the installation six borings for soil and groundwater sampling (EB-1 through EB-6). The borings were advanced to a total depth ranging from 17 to 19 feet bgs. Total petroleum hydrocarbons with gasoline distinction (TPHg) and total petroleum hydrocarbons with diesel distinction (TPHd) were detected in soil and groundwater at concentrations ranging from 80 milligrams per kilogram (mg/kg) to 340 mg/kg respectively.

On January 23, 1989, KEI oversaw the installation of four monitoring wells (MW-1 through MW-4) at the site. The wells were installed at depths ranging from 20 to 25.5 feet bgs. Groundwater was encountered at depths ranging from 10.5 to 14 feet bgs. All soil samples taken from the monitoring wells recorded non detectable concentrations of TPHg, TPHd, and benzene, toluene, ethyl-benzene and total xylenes (collectively BTEX) except the ten foot sample from MW-4 which recorded a concentration of 790 milligrams per kilogram (mg/kg) of TPHg. Groundwater samples taken from the wells contained concentrations of benzene ranging from 4.1 to 87 micrograms per liter (µg/L), concentrations of TPHg ranging from 2800 to 8800 µg/L, and concentrations of TPHd ranging from 1900 to 160,000 µg/L.

On March 29, 1989, KEI oversaw the installation of five additional monitoring wells (MW-5 through MW-9) at the site. The wells were installed at depths ranging from 18 to 20 feet bgs. Groundwater was encountered at depths ranging from 9 to 15.5 feet bgs. Soil samples from the borings were analyzed for TPHg, TPHd, and BTEX. TPHg was found in the 10-foot sample from MW-5 at a concentration of 1.1 mg/kg. TPHd was detected in soil from MW-6 at a concentration of 400 mg/kg.

On July 26, 1989, KEI oversaw the installation of two additional monitoring wells (MW-10 and MW-11) at the site. The wells were installed at depths ranging from 19 to 20 feet bgs. Soil samples from the borings were analyzed for TPHg, TPHd, and BTEX. TPHg and TPHd were found in the 13-foot sample from MW-11 at concentrations of 31 mg/kg and 120 mg/kg respectively. Groundwater samples taken from the MW-10 and MW-11 contained TPHd at concentrations of 180 ug/L and 540 ug/L respectively.

On September 1, 1995, KEI oversaw the installation of one additional groundwater monitoring well (MW-12) at the site. The well was installed at a depth of 19 feet bgs. Soil samples from the borings were analyzed for TPHg, TPHd, and BTEX. All soils recorded non-detectable concentrations of all analytes. Groundwater samples taken from the well contained TPHg, TPHd, benzene, toluene, and ethylbenzene at concentrations of 430 ug/L, 220 ug/L, 7.2 ug/L, 51 ug/L, and 12 ug/L respectively.

In December 1996, KEI oversaw the removal of two 550 gallon spill containment tanks. During the excavation KEI conducted a limited excavation around the vicinity of the tanks. In February 1997, Pacific Environmental Group (PEG) conducted a Phase I site assessment of the site. To follow up with this assessment, on September 25, 1997, PEG oversaw the advancement of five soil borings (SB-1 through SB-4 and HB-1). The borings were advanced to depths ranging from 17.7 to 35 feet bgs. Soil samples analyzed from HB-1, SB-1, and SB-4 contained relatively low concentrations of TPHg and TPHd. The highest concentration of TPHg (37 mg/kg) and TPHd (28 mg/kg) were seen in the five-foot sample taken from SB-1.

In February 1998, the quarterly monitoring activities at the site were taken over by Gettler-Ryan (GRI).

In September 1998, SHN Consulting Engineers & Geologists Inc. (SHN) prepared an interim corrective action plan (IRAP) for the site. In the IRAP, SHN recommended the installation of a supplemental oxygen source to enhance bioremediation processes at the site.

On April 12, 1999 SHN performed an additional subsurface investigation at the site. During the investigation, ten soil borings (SB-101 through SB-110) were advanced and abandoned, aquifer slug tests were performed on existing groundwater monitoring wells, and petroleum hydrocarbon fingerprinting was performed on the groundwater from the site. Based on the results of these three tests, SHN recommended the installation of a biosparge system.

During May and June, 2000 SHN supervised the installation of one bioventing test well, two biosparge wells, and three bioventing observations wells. A bioventing pilot test and a biosparge pilot test were conducted to determine the effectiveness of each method for site

remediation. Based on the results of the pilot tests, the anticipated radius of influence for a bioventing system is 30 feet per well.

On December 5, 2002, SHN recommended the installation of 7 additional bioventing wells and 20 additional ozone sparge points at the site.

On October 8 and 9, 2003 SHN oversaw the installation of biovent wells (BV-2 through BV-8).

On October 7 through 10, 2004, SHN oversaw the installation of 20 ozone sparge wells (SP-1 through SP-20). Soil samples were analyzed from all the borings. The highest concentrations of hydrocarbons were found in soils taken from SP-7 and SP-18.

## SECOND QUARTER 2005 SUMMARY

Quarterly groundwater monitoring and sampling were conducted by TRC on May 5, 2005 in accordance with RWQCB-NCR MRP No. R1-2003-0107 (Attachment 1). The current groundwater monitoring network consists of six onsite wells (MW-1 through MW-4, MW-6 and MW-7) and six offsite wells (MW-5 and MW-8 through MW-12) located in Spruce Street and Franklin Street. Wells MW-1 through MW-3, MW-5, MW-10, MW-11 and MW-12 are sampled semi-annually (first and third quarters). MW-6, MW-7, and MW-9 are sampled annually, and wells MW-4, MW-8, and MW-11 are sampled quarterly. All wells will be monitored for depth to groundwater quarterly. The monitoring and sampling plan is summarized in Table 2.

During the second quarter 2005, depth to groundwater was gauged in each monitoring well. In accordance with the MRP, groundwater samples from each monitoring well were monitored quarterly for dissolved oxygen, dissolved carbon dioxide, oxidation-reduction potential, pH, temperature and conductivity. The samples were also analyzed for TPHg, TPHd, benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX), MtBE, schedule summarized in Table 2. Additionally, the headspace in each monitoring well was monitored quarterly for percent oxygen, percent carbon dioxide, and percent organic vapor.

Historical groundwater elevation and analytical data through the second quarter 2005, TRC's monitoring and sampling procedures, certified laboratory analytical report, chain-of-custody documentation, field data sheets, and waste water disposal procedures are presented in TRC's *Quarterly Monitoring Report April Through June 2005*, included in Attachment 2. A summary of the second quarter 2005 groundwater monitoring and sampling results is presented below.

## SECOND QUARTER 2005 MONITORING AND SAMPLING RESULTS

### Groundwater Monitoring and Gradient Data

Depth to groundwater in the twelve site wells ranged from approximately 8.61 feet (MW-9) to 13.30 feet bgs (MW-5). Groundwater levels reported during the second quarter 2005 were consistent with historical levels, which have ranged between 5.08 feet and 24.87 feet bgs. Groundwater elevations in the site wells during the second quarter 2005 ranged from

approximately 62.85 feet (MW-12) above mean sea level (msl) to 68.34 feet above msl (MW-7). Regional groundwater flow during the second quarter 2005 was northwesterly at a hydraulic gradient of 0.02 feet per foot, which is consistent with the groundwater flow direction and hydraulic gradient data reported over previous quarters (Table 3). A regional groundwater elevation contour map was prepared by TRC using monitoring data collected on May 5, 2005 and is presented in Attachment 2.

## **Groundwater Quality Data**

Groundwater samples were collected from wells MW-1, MW-4, MW-8, and MW-11 on May 5, 2005. Groundwater analytical results and TPHd, TPHg, benzene, and MtBE isoconcentration maps are included in TRC's *Quarterly Monitoring Report April Through June 2005* (Attachment 2).

The dissolved plume within the shallow zone continues to be centered around the former ASTs located on the north edge of the property. The heart of the plume is centered at MW-8 and MW-4. Concentrations of TPHg, TPHd, BTEX, and MtBE this quarter were generally consistent with historical levels.

The highest concentrations of petroleum hydrocarbons were detected in well MW-4 during second quarter 2005. During the second quarter 2005, the groundwater sample collected from MW-4 had site maximum concentrations of TPPH (11,000 ug/L) and TPHd (18,000 ug/L). The concentration of TPPH was generally consistent with historical values, and the concentration of TPHd was generally less than historical concentrations. MtBE and BTEX were not detected in any wells sampled during this period. These results are consistent with recent stable trends.

## **Plume Status**

In the most recent samples collected from each well, petroleum hydrocarbons in shallow groundwater were detected at MW-1, MW-2, MW-3, MW-4, MW-6, MW-8, MW-10, and MW-11. The extent of dissolved petroleum hydrocarbons in shallow groundwater is defined downgradient (northwest), except for TPHd at MW-10, and cross-gradient (southwest-northeast) of the site, except for low concentrations of TPPH and TPHd at MW-6, and upgradient at MW-7. The extent of dissolved petroleum hydrocarbons in shallow groundwater has not been defined upgradient of well MW-4.

MtBE has been detected in both on-site and off-site wells. Generally, detection is sporadic, at low concentrations, and limited to on-site wells MW-1 and MW-2 and offsite wells MW-8 through MW-12. Most recently, the highest recorded concentration of MtBE in these wells was 43 µg/L reported in November 2004 at MW-10. Since that time, MtBE concentrations in all wells has declined.

BTEX have also been detected in both on-site and off-site wells. Generally, detection is sporadic and concentrations are low. BTEX were not detected in the most recent sample collected from each well.

## STATUS OF REMEDIAL ACTION

The ozone system is currently inoperable and is in the process of being repaired. In order to get the system running, new pressure gauges need to be installed downstream along with ball valves at each sparge line. This is to regulate backpressures on the compressor to prevent the system from shutting down. SHN is scheduled to complete this work during the third quarter of 2005.

## WASTE DISPOSAL

The volume of purged groundwater generated and disposed during the quarterly groundwater monitoring event is documented in TRC's *Quarterly Monitoring Report, April Through June 2005* dated June 6, 2005 (Attachment 2).

## RECENT SUBMITTALS/CORRESPONDENCE

Submitted the *Quarterly Summary Report – First Quarter 2005* on April 14, 2005.

Received letter from CRWQCB-NCR dated May 3, 2005 for revised MRP

Received letter from CRWQCB-NCR dated June 9, 2005 regarding SECOR's *Quarterly Monitoring Report January through March 2005* dated April 14, 2005.

SECOR submitted the revised *Quarterly Summary Report – First Quarter 2005* on June 18, 2005.

## WORK COMPLETED IN SECOND QUARTER 2005

1. TRC performed quarterly groundwater monitoring and sampling at the site.
2. SHN performed operations and maintenance.
3. SECOR prepared and submitted 1<sup>st</sup> quarter quarterly summary and monitoring report.


## PROPOSED ACTIVITIES FOR THIRD QUARTER 2005

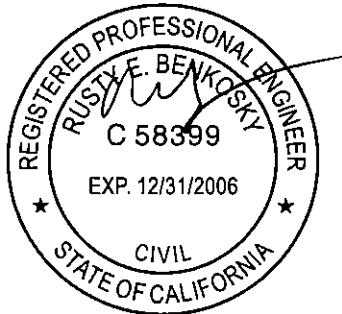
1. TRC will conduct groundwater monitoring and sampling.
2. SECOR will prepare and submit quarterly summary report.
3. SHN will perform operations and maintenance.
4. SHN to repair and restart the ozone system.

## LIMITATIONS

This report presents our understanding of existing conditions at the subject site. The conclusions contained herein are based on the analytical results, and professional judgment in accordance with current standards of professional practice; no other warranty is expressed or implied. SECOR assumes no responsibility for exploratory borings or data reported by other consultants or contractors.

Sincerely,  
**SECOR International Incorporated**

  
Rusty Benkosky, P.E.  
Principal Engineer



Attachments:	Table 1	Soil Boring and Well Construction Details
	Table 2	Monitoring and Sampling Plan
	Table 3	Historical Groundwater Flow Direction and Gradient Data
	Table 4	Sample Parameter (information from 2Q2005 TRC report dated June 6, 2005)
	Attachment 1	RWQCB-NCR MRP No. R1-2003-0107
	Attachment 2	RWQCB-NCR August 26, 2005 Letter

TABLES



**Table 1**  
**Soil Boring and Well Construction Details**

Former Tosco Bulk Plant No. 0220  
720 North Franklin Street  
Fort Bragg, California

Well I.D.	Date Installed	TOC/ PVC Elevation (feet, MSL)	Ground Surface Elevation (feet, MSL)	Well			Well Screen				Filter Pack Top (feet, bgs)	Filter Pack Top (feet, MSL)	Filter Pack Bottom (feet, bgs)	Filter Pack Bottom (feet, MSL)	Ben- tonite Top (feet, bgs)	Ben- tonite Top (feet, MSL)	Ben- tonite Bottom (feet, bgs)	Ben- tonite Bottom (feet, MSL)
				Depth (feet, bgs)	Depth (feet, MSL)	Diameter (inches)	Top (feet, bgs)	Top (feet, MSL)	Bottom (feet, bgs)	Bottom (feet, MSL)								
MW-1	01/23/89	--	--	20.5	--	2	10.5	--	20.5	--	8	--	20.5	--	6	--	8	--
MW-2	01/24/89	--	--	25.5	--	2	10.5	--	25.5	--	8	--	25.5	--	6	--	8	--
MW-3	01/24/89	--	--	22.0	--	2	10.0	--	22	--	8	--	22	--	6	--	8	--
MW-4	01/24/89	--	--	20	--	2	10.0	--	20	--	8	--	20	--	6	--	8	--
MW-5	03/29/89	--	--	20	--	2	10.0	--	20	--	8	--	20	--	6	--	8	--
MW-6	03/29/89	--	--	18.0	--	2	8.0	--	18	--	8	--	18	--	6	--	8	--
MW-7	03/29/89	--	--	18.0	--	2	8.0	--	18	--	8	--	18	--	6	--	8	--
MW-8	03/29/89	--	--	18.0	--	2	8.0	--	18.0	--	6	--	18	--	4	--	6	--
MW-9	03/29/89	--	--	19.0	--	2	9.0	--	19.0	--	7	--	19	--	5	--	7	--
MW-10	7/26/89	--	--	19	--	2	4.0	--	19.0	--	3	--	19	--	1	--	3	--
MW-11	7/26/89	--	--	20	--	2	4.0	--	20.0	--	3	--	20	--	1	--	3	--
MW-12	9/1/95	--	--	20.0	--	2	4.0	--	19.0	--	3	--	19	--	2	--	3	--

**Explanations:**

feet, MSL = Elevation in feet relative to mean sea level.

TOC = Top of well casing.

bgs = Below ground surface.

PVC = Polyvinyl chloride.

-- = Data unavailable

**Table 2**  
**Monitoring and Sampling Plan**  
 ConocoPhillips Bulk Plant No. 0220  
 720 North Franklin Street  
 Fort Bragg, California

Well ID	First Quarter MRP No. R1-2003-0107		Second & Fourth Quarters MRP No. R1-2003-0107		Third Quarter MRP No. R1-2003-0107		Work Completed During Second Quarter	
	Monitor DTW	Sample	Monitor DTW	Sample	Monitor DTW	Sample	Monitor DTW	Sample
MW-1	1	1	1		1	1	1	
MW-2	1	1	1		1	1	1	
MW-3	1	1	1		1	1	1	
MW-4	1	1	1	1	1	1	1	1
MW-5	1	1	1		1	1	1	
MW-6	1	1	1		1	1	1	
MW-7	1	1	1		1	1	1	
MW-8	1	1	1	1	1	1	1	1
MW-9	1	1	1		1	1	1	
MW-10	1	1	1		1	1	1	
MW-11	1	1	1	1	1	1	1	1
MW-12	1	1	1		1	1	1	
Totals	12	12	12	3	12	9	12	3

**Table 3**  
**Historical Groundwater Flow Direction and Gradient Data**

Former Tosco Bulk Plant No. 0248  
720 South Auburn Street  
Grass Valley, California

Date	Average Groundwater Flow Direction	Average Gradient (ft/ft)
2/19/1999	NW	0.02
5/19/1999	NW	0.02
8/5/1999	WNW	0.03
11/24/1999	NW	0.04
2/15/2000	NW	0.02
3/11/2000	NW	0.02
8/9/2000	WNW	0.01 to 0.06
11/27/2000	WNW	0.01 to 0.04
2/14/2001	NW	0.02 to 0.07
5/11/2001	NW	0.01 to 0.03
8/9/2001	NW	0.01 to 0.05
11/30/2001	NW	0.02 to 0.04
2/7/2002	NW	0.01 to 0.03
5/10/2002	NW	0.01 to 0.04
8/15/2002	NW	0.02 to 0.04
11/14/2002	NW	0.02 to 0.06
2/13/2003	WNW	0.01 to 0.03
5/16/2003	NW	0.01 to 0.02
8/12/2003	NNW	0.01 to 0.07
12/22/2003	NW	0.02
2/24/2004	NW	0.02
5/6/2004	NW	0.02
8/4/2004	NW	0.02
11/10/2004	NW	0.02
2/3/2005	NW	0.02
5/5/2005	NW	0.02
<b>Notes:</b> ft/ft                      Feet per foot NW                        Northwest WNW                     West Northwest NNW                     North Northwest Historical groundwater flow directions above are interpreted by SECOR based on a review of historical figures created by Gettler-Ryan Inc. and TRC.		

**Table 4**  
**Sample Parameters**

ConocoPhillips Bulk Plant No. 0220  
720 North Franklin Street  
Fort Bragg, California

Date Sampled	Pre-Purge Dissolved Oxygen	Post-Purge Dissolved Oxygen	Dissolved Carbon Dioxide	Oxidation- Reduction Potential	Conductivity (µS/cm)	Temper- ature (°C)	pH	Head Space		
								Carbon Dioxide	Oxygen	Organic Vapor
MW-1										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.18	0.21	--	--	--	--	--	--	--	--
08/05/99	3.70	2.35	--	--	--	--	--	--	--	--
02/15/00	3.85	3.76	--	34	--	--	--	--	--	--
08/09/00	4.09	4.48	5.5	180	--	--	--	--	--	--
05/06/04	4.63	--	--	155	--	--	--	--	--	--
08/04/04	4.63	--	--	14	--	--	--	--	--	--
02/03/05	2.20	--	15	30	338	21.3	5.89	0.6	21.6	0.0
05/05/05	2.08	--	8	121	270	14.9	5.89	0.1	20.9	0.0
MW-2										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.28	0.32	--	--	--	--	--	--	--	--
08/05/99	6.37	6.86	2	66.1	--	--	--	--	--	--
02/15/00	7.87	8.05	--	213	--	--	--	--	--	--
08/09/00	6.58	6.52	ND	254	--	--	--	--	--	--
02/24/04	7.49	--	35	174	--	--	--	--	--	--
05/06/04	6.32	--	--	163	--	--	--	--	--	--
08/04/04	4.26	--	--	10	--	--	--	--	--	--
02/03/05	5.77	--	3	124	173.6	23.1	6.05	1.0	20.7	0.0
05/05/05	5.54	--	3	093	--	--	--	0.6	20.2	0.0
MW-3										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.28	0.38	--	--	--	--	--	--	--	--
08/05/99	5.30	5.11	--	--	--	--	--	--	--	--
02/15/00	6.50	6.40	--	213	--	--	--	--	--	--
08/09/00	4.88	5.05	ND	248	--	--	--	--	--	--
02/24/04	3.19	--	50	173	--	--	--	--	--	--
05/06/04	3.75	--	--	165	--	--	--	--	--	--
08/04/04	4.21	--	--	10	--	--	--	--	--	--
11/10/04	3.20	--	--	--	--	--	--	--	--	--
02/03/05	3.87	--	6	48	191.9	22.5	6.04	0.3	21.6	0.0
05/05/05	4.02	--	4	85	--	--	--	0.2	20.9	0.0
MW-4										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.18	0.17	1.7	68.5	--	--	--	--	--	--
08/05/99	1.22	1.30	4.2	48.2	--	--	--	--	--	--
11/24/99	3.81	4.55	16	474	--	--	--	--	--	--
02/15/00	6.21	5.76	--	56	--	--	--	--	--	--
05/11/00	4.90	4.01	5.2	94	--	--	--	--	--	--
08/09/00	3.22	3.09	8.9	34	--	--	--	--	--	--
11/27/00	2.75	2.70	ND	46	--	--	--	--	--	--
02/14/01	6.8	3.2	22	63	--	--	--	--	--	--
05/11/01	5.2	3.4	7.5	44	--	--	--	--	--	--
08/09/01	6.4	3.3	12	54	--	--	--	--	--	--
11/30/01	5.7	3.4	21	55	--	--	--	--	--	--
02/07/02	2.5	3.3	11	63	--	--	--	--	--	--
05/10/02	1.1	--	18	61	--	--	--	--	--	--

Date Sampled	Pre-Purge Dissolved Oxygen	Post-Purge Dissolved Oxygen	Dissolved Carbon Dioxide	Oxidation- Reduction Potential	Conductivity (µS/cm)	Temperature (°C)	pH	Head Space		
								Carbon Dioxide	Oxygen	Organic Vapor
08/15/02	2.6	--	20	-15	--	--	--	--	--	--
11/14/02	1.6	--	27	106	--	--	--	--	--	--
02/13/03	1.4	--	11	18	--	--	--	--	--	--
05/16/03	1.4	--	13	55	--	--	--	--	--	--
08/12/03	1.3	--	39	30	--	--	--	--	--	--
05/06/04	4.51	--	--	10	--	--	--	--	--	--
08/04/04	4.64	--	--	9	--	--	--	--	--	--
11/10/04	1.48	--	--	--	--	--	--	--	--	--
02/03/05	1.21	--	11	16	295	20.1	6.02	0.1	21.6	0.0
05/05/05	0.84	--	15	147	218	14.5	6.07	0.0	20.9	0.0
MW-5										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.32	0.38	--	--	--	--	--	--	--	--
08/05/99	6.94	4.31	--	--	--	--	--	--	--	--
02/15/00	9.11	8.96	--	129	--	--	--	--	--	--
08/09/00	6.45	4.90	5.70	94	--	--	--	--	--	--
05/06/04	3.29	--	--	166	--	--	--	--	--	--
MW-6										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.32	0.32	--	--	--	--	--	--	--	--
08/05/99	5.11	5.10	--	--	--	--	--	--	--	--
02/15/00	6.23	5.90	--	203	--	--	--	--	--	--
08/09/00	7.06	6.84	ND	266	--	--	--	--	--	--
02/24/04	2.19	--	60.00	170	--	--	--	--	--	--
05/06/04	1.59	--	--	210	--	--	--	--	--	--
02/03/05	1.71	--	13	21	203.5	22.7	6.09	0.4	21.7	0.0
05/05/05	1.65	--	6	98	--	--	--	0.5	20.9	0.0
MW-7										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.38	0.51	1.6	50.1	--	--	--	--	--	--
02/15/00	7.95	8.56	--	228	--	--	--	--	--	--
02/14/01	6.4	7.3	12	294	--	--	--	--	--	--
02/07/02	6.5	6.8	ND<10	233	--	--	--	--	--	--
02/13/03	5.6	--	ND<10	85	--	--	--	--	--	--
02/24/04	5.57	--	35	223	--	--	--	--	--	--
05/06/04	5.34	--	--	209	--	--	--	--	--	--
02/03/05	6.57	--	3.00	98	183.7	21.7	5.93	0.3	21.6	0.0
05/05/05	4.60	--	5	088	--	--	--	0.0	20.9	0.0
MW-8										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.04	0.10	2.1	13.1	--	--	--	--	--	--
08/05/99	0.57	2.00	3.6	48.8	--	--	--	--	--	--
11/24/99	4.87	5.21	17	523	--	--	--	--	--	--
02/15/00	4.94	3.52	--	6	--	--	--	--	--	--
05/11/00	5.56	2.92	6.2	77	--	--	--	--	--	--
08/09/00	2.45	2.44	7.5	52	--	--	--	--	--	--
11/27/00	1.95	2.16	5.3	64	--	--	--	--	--	--
02/14/01	4.1	3.2	20	62	--	--	--	--	--	--
05/11/01	4.1	3.4	9.5	61	--	--	--	--	--	--
08/09/01	5.5	4.8	10	55	--	--	--	--	--	--
11/30/01	5.4	5.0	16	49	--	--	--	--	--	--
02/07/02	2.5	3.0	13	57	--	--	--	--	--	--
05/10/02	1.3	--	12	81	--	--	--	--	--	--
08/15/02	2.6	--	12	2	--	--	--	--	--	--

Date Sampled	Pre-Purge Dissolved Oxygen	Post-Purge Dissolved Oxygen	Dissolved Carbon Dioxide	Oxidation Reduction Potential	Conductivity (µS/cm)	Temperature (°C)	pH	Head Space		
								Carbon Dioxide	Oxygen	Organic Vapor
11/14/02	1.6	--	20	170	--	--	--	--	--	--
02/13/03	1.5	--	11	-15	--	--	--	--	--	--
05/16/03	1.0	--	ND<10	60	--	--	--	--	--	--
08/12/03	1.4	--	35	50	--	--	--	--	--	--
02/24/04	1.24	--	95	1	--	--	--	--	--	--
05/06/04	5.02	--	--	-55	--	--	--	--	--	--
08/04/04	4.68	--	--	-83	--	--	--	--	--	--
11/10/04	2.08	--	--	--	--	--	--	--	--	--
02/03/05	2.28	--	76	96	665	14.6	5.49	0.3	21.6	2.3
05/05/05	0.79	--	34	-101	372	15.5	6.24	0.0	20.9	0.0
MW-9										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.82	0.84	--	43.9	--	--	--	--	--	--
08/05/99	10.01	2.15	--	--	--	--	--	--	--	--
02/15/00	8.01	6.36	--	209	--	--	--	--	--	--
08/09/00	6.11	4.69	6.2	221	--	--	--	--	--	--
02/24/04	4.14	--	50	164	--	--	--	--	--	--
05/06/04	3.92	--	--	146	--	--	--	--	--	--
02/03/05	5.21	--	9	32	190.6	17.9	5.86	2.0	21.1	0.0
05/05/05	4.13	--	9	-50	--	--	--	1.1	18.6	0.0
MW-10										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.63	0.65	2.2	19.1	--	--	--	--	--	--
08/05/99	3.06	1.45	3.6	55.2	--	--	--	--	--	--
02/15/00	6.28	8.14	--	225	--	--	--	--	--	--
08/09/00	2.82	3.53	6.4	106	--	--	--	--	--	--
02/14/01	3.7	4.7	15	168	--	--	--	--	--	--
08/09/01	3.4	4.4	12	154	--	--	--	--	--	--
02/07/02	4.5	5.6	13	170	--	--	--	--	--	--
08/15/02	2.5	--	13	-15	--	--	--	--	--	--
02/13/03	4.6	--	ND<10	81	--	--	--	--	--	--
08/12/03	2.1	--	35	151	--	--	--	--	--	--
02/24/04	5.93	--	45	181	--	--	--	--	--	--
05/06/04	5.13	--	--	179	--	--	--	--	--	--
08/04/04	0.00531	--	--	-40	--	--	--	--	--	--
11/10/04	2.32	--	--	--	--	--	--	--	--	--
02/03/05	4.1	--	16	75	297	16.2	5.84	0.6	21.9	0.0
05/05/05	5.23	--	6	45	--	--	--	0.1	20.9	0.0
MW-11										
08/22/95	--	--	--	--	--	--	--	--	--	--
05/19/99	0.22	0.20	1.9	66.7	--	--	--	--	--	--
08/05/99	1.16	2.08	3.3	46.3	--	--	--	--	--	--
11/24/99	5.71	6.33	11	533	--	--	--	--	--	--
02/15/00	6.08	6.66	--	185	--	--	--	--	--	--
05/11/00	6.93	5.77	ND	173	--	--	--	--	--	--
08/09/00	2.64	3.56	6.4	58	--	--	--	--	--	--
11/27/00	3.14	3.51	6.7	89	--	--	--	--	--	--
02/14/01	5.9	6.9	9.3	264	--	--	--	--	--	--
05/11/01	5.5	6.7	9.0	258	--	--	--	--	--	--
08/09/01	3.9	5.3	11	268	--	--	--	--	--	--
11/30/01	5.1	6.4	13	189	--	--	--	--	--	--
02/07/02	3.9	4.8	13	266	--	--	--	--	--	--
05/10/02	1.7	--	14	30	--	--	--	--	--	--
08/15/02	2.8	--	13	-31	--	--	--	--	--	--
11/14/02	1.1	--	22	126	--	--	--	--	--	--

Date Sampled	Pre-Purge Dissolved Oxygen	Post-Purge Dissolved Oxygen	Dissolved Carbon Dioxide	Oxidation- Reduction Potential	Conductivity (µS/cm)	Temper- ature (°C)	pH	Head Space		
								Carbon Dioxide	Oxygen	Organic Vapor
02/13/03	2.4	--	ND<10	61	--	--	--	--	--	--
05/16/03	3.8	--	ND<10	220	--	--	--	--	--	--
08/12/03	1.9	--	36	56	--	--	--	--	--	--
02/24/04	2.81	--	50	202	--	--	--	--	--	--
05/06/04	6.67	--	--	46	--	--	--	--	--	--
08/04/04	5.76	--	--	-31	--	--	--	--	--	--
11/10/04	1.64	--	--	--	--	--	--	--	--	--
02/03/05	7.13	--	5	38	308	18.1	5.86	0.1	22.1	0.0
05/05/05	5.60	--	6	-002	244	15.9	6.40	0.0	20.9	0.0
MW-12										
05/19/99	0.35	0.28	--	11.3	--	--	--	--	--	--
08/05/99	6.80	5.41	1.0	24.8	--	--	--	--	--	--
02/15/00	8.20	8.57	--	239	--	--	--	--	--	--
08/09/00	7.19	6.58	ND	152	--	--	--	--	--	--
02/14/01	8.8	7.4	5.4	285	--	--	--	--	--	--
08/09/01	6.8	6.1	5.0	266	--	--	--	--	--	--
02/07/02	9	8.9	ND<10	244	--	--	--	--	--	--
08/15/02	1.9	--	15	52	--	--	--	--	--	--
08/12/03	1.20	--	26	283	--	--	--	--	--	--
02/24/04	6.13	--	30	187	--	--	--	--	--	--
05/06/04	5.27	--	--	210	--	--	--	--	--	--
08/04/04	5.28	--	--	-61	--	--	--	--	--	--
02/03/05	8.37	--	6.00	69	270	16.2	6.27	0.6	0.0	21.8
38477	6.93	--	5	018	--	--	--	0.2	20.9	0.0

**ATTACHMENT 1**

**RWQCB-NCR MRP NO. R1-2003-0107**

Second Quarter 2005 Quarterly Summary and Monitoring Report

Bulk Plant No. 0220

720 North Franklin Street

Fort Bragg, California

SECOR Project No.: 77CP.60009.01.0220



California Regional Water Quality Control Board  
North Coast Region

Revised Monitoring and Reporting Program No. RI-2003-0107

for

Unocal Bulk Plant #0220  
720 North Franklin Street  
Fort Bragg, California

Mendocino County

**MONITORING**

1. The depth to groundwater in all monitoring wells shall be determined to at least 0.01 foot increments quarterly. The results shall be reported in tabular form indicating the surveyed elevation of each well reference point, depth to groundwater from the reference point, and the actual groundwater elevation. The data generated from the elevation readings must be referenced to mean sea level.
2. Groundwater in each monitoring well shall be monitored quarterly for dissolved oxygen, dissolved carbon dioxide, oxidation-reduction potential, pH, temperature, and conductivity.
3. Headspace in each monitoring well shall be monitored quarterly using field instruments to measure percent oxygen, percent carbon dioxide, and organic vapor.
4. Groundwater in each monitoring well shall be sampled according to Table 1 (Attached). The analyses shall be performed by a state certified laboratory for total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d), benzene, toluene, ethylbenzene, xylene (collectively identified as BTEX), methyl tertiary butyl ether (MTBE), dissolved methane, dissolved iron, dissolved manganese, nitrate, and sulfate (collectively identified as ADDITIONAL).

**REPORTING**

1. The following maps shall be submitted with each quarterly monitoring report:
  - a. A map of the facility showing the quarterly groundwater flow pattern, including the direction of the groundwater gradient and the location of all monitoring wells, and
  - b. A map of the facility showing the quarterly chemical concentrations.
2. The results of each quarter's elevation shall be reported in a tabular form indicating the surveyed elevations of each reference point, depth to groundwater from the reference point, and the actual groundwater elevation.

Monitoring & Reporting Program 2  
No. R1-2003-0107

May 3, 2005

3. Sampling analytical and monitoring data from each quarter shall be summarized in tabular form, including all previously generated sampling data.
4. Monitoring reports shall be submitted to the Regional Water Board at a quarterly frequency. Monitoring reports shall be prepared by or under the supervision of a California Registered Engineer or Geologist. Monitoring reports shall be submitted to this office in accordance with the following schedule:

**Reporting Period**

**Due Date**

January, February, March (1<sup>st</sup> Quarter)

April 15

April, May, June (2<sup>nd</sup> Quarter)

July 15

July, August, September (3<sup>rd</sup> Quarter)

October 15

October, November, December (4<sup>th</sup> Quarter)

January 15

5. All monitoring reports, data, and depth to groundwater shall also be submitted electronically to the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as required by Title 23, Division 3, Chapter 16, Article 12 of the California Code of Regulations (i.e., AB2886 electronic reporting requirements)<sup>1</sup>
6. An annual report shall be submitted to the Regional Water Board by January 15 of each year. The annual report serves as a document to evaluate data generated throughout each calendar year. This report needs to include a full evaluation of all data generated throughout the year, including concentration trend evaluation for all analyses performed, evaluation of all indicator parameters in terms of remedial effectiveness, conditions of the remedial system, and an overall evaluation of the effectiveness of the active remedial system.
7. The annual report shall also include all maintenance and operations records for the entire year. Records should include date of inspections, parameters measured, summary of visual observations made, and changes made to the operating system.

Ordered by



Catherine Kuhlman  
Executive Officer

May 3, 2005

050305\_CHS\_UBP\_M&RP\_revised

<sup>1</sup> Information on AB2886 electronic reporting can be obtained on the Internet by following the Electronic Submittal of Information link on the GeoTracker home page at <http://geotracker.waterboards.ca.gov/>.

Monitoring & Reporting Program 3  
No. R1-2003-0107

May 3, 2005

Table 1

Well ID	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
MW-1	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-2	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-3	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-4	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d, BTEX, MTBE	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d, BTEX, MTBE
MW-5	TPH-g, TPH-d, BTEX, MTBE		TPH-g, TPH-d, BTEX, MTBE	
MW-6	TPH-g, TPH-d, BTEX, MTBE			
MW-7	TPH-g, TPH-d, BTEX, MTBE			
MW-8	TPH-g, TPH-d, BTEX, MTBE	TPH-g, TPH-d	TPH-g, TPH-d, BTEX, MTBE	TPH-g, TPH-d
MW-9	TPH-g, TPH-d, BTEX, MTBE			
MW-10	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL		TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	
MW-11	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	TPH-g, TPH-d
MW-12	TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL		TPH-g, TPH-d, BTEX, MTBE, ADDITIONAL	

**ATTACHMENT 2**

**RWQCB-NCR AUGUST 26, 2005 LETTER**

Second Quarter 2005 Quarterly Summary and Monitoring Report

Addendum

Bulk Plant No. 0220

720 North Franklin Street

Fort Bragg, California

SECOR Project No.: 77CP.60009.01.0220



Alan C. Lloyd, Ph.D.  
Agency Secretary

**California Regional Water Quality Control Board**  
**North Coast Region**  
**Beverly Wasson, Chairperson**

<http://www.waterboards.ca.gov/northcoast>  
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403  
Phone: 1 (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135



Arnold  
Schwarzenegger  
Governor

August 26, 2005

Mr. Ed Ralston  
ConocoPhillips  
76 Broadway  
Sacramento, CA 95818

Dear Mr. Ralston:

Subject: *Quarterly Summary and Monitoring Report-Second Quarter 2005*  
File: Unocal Bulk Plant #0220, 720 North Franklin Street, Fort Bragg  
Case No. 1NMC048

Regional Water Board staff received the *Quarterly Summary and Monitoring Report-Second Quarter 2005*, submitted by SECOR International, Inc. The report summarized quarterly monitoring activities that took place on May 5, 2005. Regional Water Board staff has the following comment on the report:

Parameter measurements for dissolved oxygen, dissolved carbon dioxide, oxidation-reduction potential, pH, temperature, and conductivity were not presented in tabular form. All data collected during each monitoring event must be presented in tabular form, as required by Revised Monitoring & Reporting Program No. R1-2003-0107. Please submit a report addendum containing a revised table presenting the above-referenced parameter measurements within thirty days of the date of this letter.

If you have any questions, please contact me at 707-576-2831.

Sincerely,

Colleen Stone  
Environmental Scientist

CHS:clh/082605\_CHS\_ubp\_monitoring

cc: TRC, 21 Technology Drive, Irvine, CA 94618  
Mr. David Smith, Mendocino Coast Petroleum Inc., 720 North Franklin Avenue, Fort Bragg, CA 95437  
Mr. Thomas Potter, SECOR International, Inc., 3017 Kilgore Road, Suite 100, Rancho Cordova, CA 95670  
Mendocino County Health Department

**California Environmental Protection Agency**

Recycled Paper

AUG 29 2005

BY: \_\_\_\_\_